

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A valve comprising:

a valve body;

a chamber provided in said valve body, said chamber having an end with an outlet and a seat;

~~a shutter placed provided in a said chamber (12) provided in a valve body,;~~
~~an end of said chamber being provided with a seat against which a flapplug-forming part of the provided on said shutter, the plug-forming part configured to rests rest against the seat to close the outlet in a closed position of the valve and is configured to be remote therefrom from the seat in an open position of the valve;~~ and

a magnetic control device including:

~~-shutter external magnetic drive driving means disposed outside the chamber, and for moving it either to its closed position or to its open position,;~~

~~wherein said magnetic control device further comprises at least one ball~~

~~- a magnetically driven member which is made of a magnetic material, which is disposed in said chamber and which is magnetically coupled to said external magnetic drive driving means;~~

~~wherein said ball being associated with magnetically driven member engages said shutter~~

in such a way that said shutter is driven to the open position or to the closed position by the magnetically driven member in said chamber when said ball-magnetically driven member is itself moved by said external magnetic drive-driving means;

wherein said magnetically driven member comprises at least one ball.

2. (currently amended): The valve as claimed in claim 1, wherein said at least one ball turns freely relative to said shutter.

3. (currently amended): The valve as claimed in claim 1, wherein said shutter includes at least one housing in which said at least one ball is placedhoused.

4. (currently amended): The valve as claimed in claim 1, wherein said valve is includes centering means adapted to center said shutter in said valve body.

5. (currently amended): The valve as claimed in claim 4, wherein said shutter is associated withmagnetically driven member comprises at least two balls that cooperate therewithwith said shutter and said valve body to provideso that said centering byis provided by said external magnetic drive-driving means.

6. (currently amended): The valve as claimed in claim 4, wherein said centering means are disposed inside said chamber, on thea lateral wall (120) thereof, so as to cooperate with said shutter.

7. (currently amended): The valve as claimed in claim 4, wherein said centering means are disposed on said shutter so as to cooperate with said an internal lateral wall (120) of said chamber.

8. (currently amended): The valve as claimed in claim 64, wherein said centering means are disposed inside said chamber, on a lateral wall thereof; and wherein said centering means are fins.

9. (currently amended): The valve as claimed in claim 1, wherein said shutter is associated with magnetically driven member comprises at least two balls that are offset longitudinally relative to the axis of said shutter.

10. (currently amended): The valve as claimed in claim 1, wherein at least one section of said shutter is associated with said magnetic driven member comprises at least two balls that are offset angularly relative to each other and that are associated with at least one portion of said shutter.

11. (currently amended): The valve as claimed in claim 1, wherein two separate sections of said shutter are each associated with said magnetic driven member comprises at least two balls that are associated with two separate portions of said shutter; and wherein the two balls are disposed so that the an angular offset between two successive

balls of a same section-portion is less than or equal to 180° .

12. (currently amended): The valve as claimed in claim 1, wherein ~~the~~⁽ⁿ⁾ balls of ~~are~~
provided in a section-portion and ~~are~~ offset angularly by an angle equal to $360^\circ/n$.

13. (currently amended): The valve as claimed in claim 1, wherein at least one fluid
passage groove is ~~machined~~provided in the~~an~~ inside wall (120) of said chamber, and wherein a
rolling area is ~~formed~~provided on either side of said groove.

14. (currently amended): The valve as claimed in claim 1, wherein said external
magnetic ~~drive~~driving means ~~placed~~ outside ~~said~~ valve ~~body~~ are adapted to be moved along a
direction parallel to the longitudinal axis of said valve ~~so as to~~while ~~drive~~driving ~~the~~ said at
least one ball simultaneously.

15. (currently amended): The valve as claimed in claim 14, wherein said external
magnetic ~~drive~~driving means comprise at least one magnet.

16. (new): The valve according to claim 3, wherein said at least one ball protrudes in
part outside said at least one housing so that said at least one ball is in rolling contact with an
inner wall of the chamber.

17. (new): The valve according to claim 1, wherein the shutter extends axially within the tubular body and the at least one ball is held at least in part by the shutter between the distal ends of the shutter.

18. (new): The valve according to claim 1, wherein the at least one ball is disposed between a central longitudinal axis of the shutter and a wall of the chamber.

19. (new): The valve according to claim 1, wherein the at least one ball provides rolling bearing support for the shutter as the shutter moves between the open position and the closed position.

20. (new): The valve according to claim 1, wherein the at least one ball pushes the plug forming part to the closed position and pulls the plug-forming part to the open position.

21. (new): The valve according to claim 1, wherein the shutter partially surrounds the at least one ball such that a portion of the shutter is disposed between the at least one ball and an inlet to the chamber; and

wherein the shutter partially surrounds the at least one ball such that a portion of the shutter is disposed between the at least one ball and the outlet to the chamber.

22. (new): A valve comprising:

a tubular body comprising an outlet and a seat surrounding the outlet;

a shutter disposed inside the body, wherein the shutter is configured to close the outlet by contacting and forming a seal with the seat and wherein the shutter opens the outlet by being lifted from the seat;

at least one ball made of magnetic material held at least in part by the shutter, wherein the shutter is configured to allow the at least one ball to freely rotate and roll along an inside surface of the tubular body, thereby preventing the shutter from contacting a side wall of the tubular body;

a magnetic device disposed outside the tubular body which magnetically attracts the at least one ball such that when the magnetic device moves the at least one ball moves;

wherein the at least one ball pulls the shutter to the open position and wherein the at least one ball pushes the shutter to the closed position.

23. (new): The valve according to claim 22, wherein the at least one ball protrudes beyond the shutter to rollingly engage the inside surface of the tubular body.

24. (new): The valve according to claim 22, wherein the shutter extends axially within the tubular body and the at least one ball is held at least in part by the shutter between distal ends of the shutter.

25. (new): The valve according to claim 22, wherein the at least one ball is held by

the shutter between a central longitudinal axis of the shutter and an inside surface of the tubular body.

26. (new): The valve according to claim 22, wherein the at least one ball provides rolling bearing support for the shutter as the shutter moves between the open position and the closed position.